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Yoshitaka Fujita

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EXAMINER

RENNER, BRANDON M

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/050,600	Applicant(s) FUJITA, YOSHITAKA	
	Examiner BRANDON RENNER	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-5, 8-16 and 23-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-16 and 23-27 is/are allowed.
- 6) ☒ Claim(s) 3-5, 8-10, 28-34 and 36-39 is/are rejected.
- 7) ☒ Claim(s) 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This communication is in response to the amendment filed 6/18/2009. The amendment has been entered and considered.

- Claims 30-39 are added
- Claims 3-5, 8-16, and 23-39 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33-34 recites the limitation "the discrimination results". There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 3 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Gelman et al. "Gelman" US 6,493,348.

Regarding claims 3 and 8, Gelman discloses a demultiplexing method of receiving a multiplexed signal obtained by multiplexing a plurality of communication signals from a multiplexed signal transmitting section, demultiplexing the multiplexed signal into communication signals, and transmitting the demultiplexed communication signals to a communication signal receiving section, the method comprising:

adding, to each of the plurality of communication signals (packets traverse the network from a source to a destination hop by hop. The routers provide various routing functions and uses routing tables which have pre-assigned identification for where the packet is to be forwarded; Column 2 Lines 8-25), an identification address preassigned to a predetermined signal identifying section through which a communication signal passes in a multiplexing system, including the multiplexed signal transmitting section and the communication signal receiving section, and outputting each of the communication signals, extracting the identification address from each of the output signals, and demultiplexing the multiplexed signal for each of the communication signals on the basis of the extracted identification address (signals enter the system at the IP backbone routers (24). MAC layer addresses are assigned and used as identification addresses for each signal which is later demultiplexed at the DSLAM / DSL access router to reach the appropriate destination, see Figures 1 and 3 and Column 2 Lines 8-25. Thus, the DSLAM effectively extracts the identification addresses from the packets

Art Unit: 2416

in order to properly demultiplex the packets and sent them to the appropriate destination device.

Claims 5 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson US 6,765,910.

Regarding claims 5 and 10, Johnson discloses demultiplexing a multiplexed signal obtained by multiplexing a plurality of packets into packets, comprising:

extracting an IP address from each packet in the received multiplexed signal for each of the plurality of packets, the IP address being preassigned to a predetermined signal and demultiplexing the multiplexed signal into PPP packets on the basis of the extracted IP address (switch/router (30) provides a bridge for PPP streams to pass signals to the subscriber devices. The switch/router examines the contents of the PPP stream and selectively separates certain packets out of the stream when it detects the packets are intended for a server and forwards them only to the intended servers; Column 8 Lines 22-30. In other words, the PPP packet stream is analyzed based on the IP address which is extracted from the packet headers and the packets are forwarded based on this extracted information. The routing decisions are made based on IP addresses which are imbedded in the packet headers for the packets being communicated over the network; Column 8 Lines 31-40).

Claim Rejections - 35 USC § 103

Art Unit: 2416

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 9, 28-30, 32-34, and 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelman in view of Johnson.

Regarding claims 4 and 9, Gelman discloses the identification address includes a MAC address; Column 2 Lines 20-25. Gelman does not explicitly disclose the communication signal includes a PPP packet created for each IP subscriber. However, Johnson discloses packets arriving at the router from a server which are formatted into PPP format and inserted into PPP streams; Column 8 Lines 30-33.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gelman to include PPP packet streams.

One would be motivated to make the modification such that a direct communication link could be setup between a source and destination device.

Regarding claim 28, Gelman discloses a demultiplexing method of receiving a multiplexed signal obtained by multiplexing a plurality of communication signals from a multiplexed signal transmitting section, demultiplexing the multiplexed signal into communication signals, and transmitting the demultiplexed communication signals to a communication signal receiving section, the method comprising:

adding, to each of the plurality of communication signals (packets traverse the network from a source to a destination hop by hop. The routers provide various routing functions and uses routing tables which have pre-assigned identification for where the packet is to be forwarded; Column 2 Lines 8-25), an identification address preassigned to a predetermined signal identifying section through which a communication signal passes in a multiplexing system, including the multiplexed signal transmitting section and the communication signal receiving section, and outputting each of the communication signals, extracting the identification address from each of the output signals, and demultiplexing the multiplexed signal for each of the communication signals on the basis of the extracted identification address (signals enter the system at the IP backbone routers (24). MAC layer addresses are assigned and used as identification addresses for each signal which is later demultiplexed at the DSLAM / DSL access router to reach the appropriate destination, see Figures 1 and 3 and Column 2 Lines 8-25. Thus, the DSLAM effectively extracts the identification addresses from the packets in order to properly demultiplex the packets and sent them to the appropriate destination device.

Gelman does not explicitly disclose the communication signal includes a PPP packet created for each IP subscriber. However, Johnson discloses packets arriving at the router from a server which are formatted into PPP format and inserted into PPP streams; Column 8 Lines 30-33.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gelman to include PPP packet streams.

One would be motivated to make the modification such that a direct communication link could be setup between a source and destination device.

Regarding claim 29, Gelman discloses converting the demultiplexed signal into a DSL signal and transmitting the signal to a subscriber (signals are demultiplexed by an XDSL access router and forwarded on to their respective destination terminals (i.e. subscriber apparatus); Column 6 Lines 26-46, see also Figures 3 and 4. Thus, the XDSL access router effectively converts the signals into proper format to provide DSL servers to the subscribers).

Regarding claim 30, Gelman teaches an access network system for performing PPP processing by using a medium access control (MAC) layer, comprising:

- a computer (15 of Figure 3);

- a subscriber apparatus adds a MAC frame header to an IP packet transmitted from the computer to form a frame packet (Figure 5 illustrates the information being communicated through the system (as shown in Figure 3) includes an IP address and MAC for the packets which include source/destination information; Column 6 Lines 46-59);

- a subscriber multiplexing/demultiplexing apparatus connected to the subscriber apparatus (ATU-R and DSLAM provide multiplexing/demultiplexing capabilities within the system and are connected to the computer in the subscriber apparatus; Figure 3 and Column 6 Lines 26-45); and

an access gateway connected to the subscriber multiplexing/demultiplexing apparatus, said access gateway being associated with a backbone network (network switch (22) is connected to the IP backbone through backbone routers 24; Figure 3),

wherein the MAC frame header comprises an MAC address, said MAC address including a source identification address comprising an identification address (Figure 5 illustrates the information being communicated through the system (as shown in Figure 3) includes an IP address and MAC for the packets which include source/destination information; Column 6 Lines 46-59) of a predetermined identification section through which a communication signal passes in a multiplex system at which a signal is output from the subscriber apparatus and a predetermined destination identification address comprising an identification address of a signal identification section through which a communication signal passes in the multiplex system to which a signal is input into the subscriber multiplexing/demultiplexing apparatus(signals/packets traverse the network from a source to a destination hop by hop. The routers provide various routing functions and uses routing tables which have pre-assigned identification for where the packet is to be forwarded; Column 2 Lines8-25. Thus, pre-assigned addresses are used to properly route the information through the network as claimed).

Gelman does not disclose adding a PPP header to the data in the network. However, Johnson teaches discloses packets arriving at the router from a server which are formatted into PPP format and inserted into PPP streams; Column 8 Lines 30-33.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gelman to include PPP packet streams.

One would be motivated to make the modification such that a direct communication link could be setup between a source and destination device.

Regarding claims 32, 36, and 38, Gelman teaches extracting the frame packet and the MAC address added to the packet and to transfer the extracted frame packet and MAC address to a multiplexing block (The access router (120) in combination with the ATU-Rs (18) provide mux/demux capabilities for the system; Figures 4-5). The Line cards (121) multiplex/demultiplex the packets received from or addresses to the ATU-Rs. Thus, information within the packets (i.e. MAC information with corresponding source/destination information) is extracted as claimed; Column 6 Lines 26-59) ;

executing an interface function between the subscriber multiplexing/demultiplexing apparatus and the access gateway for the extracted frame packet (as shown in Figure 3, the system is performed using Ethernet (12a-12n). Further, the mux/demux packets are transmitted from the ATU-R and access routers to a network switch (i.e. access gateway);

receiving a signal output from an input interface block of the access gateway, extract a frame packet and a MAC address, and transfer the extracted frame packet and MAC address to a demultiplexing block (Figure 3 shows the use of an Ethernet network (12a-12n). Further, when data traverses the network from the internet back through the network switch (i.e. gateway) to the access router/ATU-Rs, the signals are received and the data is demuxed such that the data is separated and sent to the corresponding destination device (15); Column 6 Lines 26-59, see also Figure 3. Thus, as one can

Art Unit: 2416

see, the signals are received at the access router and later the MAC information is extracted from the packets such that they are sent to the appropriate destination device based on source/destination information within the packets); and

executing an interface function with respect to each frame packet demultiplexed by the demultiplexing block for a corresponding subscriber and to transfer the demultiplexed frame packet to a corresponding subscriber apparatus (Figure 3 shows the use of an Ethernet network (12a-12n). Further, when data traverses the network from the internet back through the network switch (i.e. gateway) to the access router/ATU-Rs, the signals are received and the data is demuxed such that the data is separated and sent to the corresponding destination device (15); Column 6 Lines 26-59, see also Figure 3. Thus, as one can see, the signals are received at the access router and later the MAC information is extracted from the packets such that they are sent to the appropriate destination device based on source/destination information within the packets),

wherein the multiplexing/demultiplexing the frame packets input based on input MAC addresses (the packets traversing the network are mux/demuxed based on the source/destination identification information (input) within the MAC frames such that the frames are sent to the appropriate destination; Column 6 Lines 26-59).

Gelman and Johnson do not explicitly disclose individual blocks within the access router/ATU-Rs. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gelman and Johnson to include

Art Unit: 2416

separate blocks within the mux/demux apparatus to perform the above-identified functions.

One would be motivated to make the modification such that you have separate blocks/components dedicated to perform certain tasks for more efficient processing.

Regarding claim 33, Gelman teaches:

receiving a signal, extract a frame packet and an MAC address contained in the signal, and transfer the extracted frame packet and the MAC address in the signal to a packet switch module (as shown in Figure 3 and described in Column 6 Lines 26-59, Gelman discloses a multiplexed signal is sent from the Access router to the access gateway (i.e. network switch 22). The access gateway then forwards the packets on to their respective backbone routers or web servers (24, 126a-n, and 28a-n). One skilled in the art would appreciate that if the network switch sends the packets to different destinations, then the switch must extract the information from the received signal in order to determine which packets correspond to which router/web server and thus reads on the claimed limitations);

executing an interface function between the access gateway and the backbone network (Network switch (22) receives data from the access routers (120a-n), sends the packets to the IP backbone routers (24) and the backbone routers can access the internet; Figure 3);

executing an interface function with respect to signals received from the backbone network (Figure 3 shows data can be sent from the network switch through

Art Unit: 2416

the backbone routers and to the internet. Thus, when the requested information from the internet is retrieved, packets are sent back through the backbone routers and to the network switch. Thus, the network switch effectively receives signals from the backbone network as claimed). Gelman teaches packets being sent via Ethernet protocol (see Figure 3) as well as sending packets through the IP network. Gelman also teaches adding header information to a packet (packets are sent through the network and MAC layer addresses are assigned and used as identification addresses for each signal which is later demultiplexed at the DSLAM / DSL access router to reach the appropriate destination, see Figures 1 and 3 and Column 2 Lines 8-25).

Gelman does not explicitly recite performing switching on PPP packets and converting the frames between various protocols. However, Johnson teaches:

receiving the frame packet or PPP packet switched by the packet switch module, convert the frame packet into an Ethernet signal, and output the Ethernet signal (network switch 30 receives packets traversing the network and includes a protocol converter (46) which converts the data between IP packets and ATM packets; Column 6 Lines 52-67. Once the conversion is complete, the packets are then sent out on the Ethernet network);

wherein the packet switch module performs switching with respect to the frame packets on a basis of the MAC addresses and the discrimination results transferred from the output Ethernet interface, and performs switching with respect to PPP packets on a basis of the IP addresses transferred from the input interface (switch/router (30) provides a bridge for PPP streams to pass signals to the subscriber devices. The

Art Unit: 2416

switch/router examines the contents of the PPP stream and selectively separates certain packets out of the stream when it detects the packets are intended for a server and forwards them only to the intended servers; Column 8 Lines 22-30. In other words, the PPP packet stream is analyzed based on the IP address which is extracted from the packet headers and the packets are forwarded based on this extracted information. The routing decisions are made based on IP addresses which are imbedded in the packet headers for the packets being communicated over the network; Column 8 Lines 1-40).

Gelman and Johnson do not explicitly disclose individual blocks within the access router/ATU-Rs. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gelman and Johnson to include separate blocks within the mux/demux apparatus to perform the above-identified functions.

One would be motivated to make the modification such that you have separate blocks/components dedicated to perform certain tasks for more efficient processing.

Regarding claim 34, Gelman teaches a source ID address including an ID for the section through which the signal must pass (Figure 5 illustrates the information being communicated through the system (as shown in Figure 3) which includes an IP address and MAC for the packets which include source/destination information; Column 6 Lines 46-59) which the signal is output from the access gateway and a destination identification address comprising an identification address of a signal identification

Art Unit: 2416

section through which a communication signal passes in the multiplex system to which a signal is input into the subscriber multiplexing/demultiplexing apparatus (signals/packets traverse the network from a source to a destination hop by hop. The routers provide various routing functions and uses routing tables which have pre-assigned identification for where the packet is to be forwarded; Column 2 Lines 8-25. Thus, pre-assigned addresses are used to properly route the information through the network as claimed).

Regarding claims 37 and 39, Gelman teaches demuxing packets based on MAC address (Figure three shows the access routers and ATU-Rs which demux packets and send them via the Ethernet network to the appropriate destinations, thus the packet information used is found in the MAC information of the packets; Column 4 Lines 26-59).

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gelman in view of Johnson and further in view of Ofek US 6,760,328.

Regarding claim 31, Gelman teaches the MAC address include a source and destination identification (it is well known that both MAC and IP identifiers include source and destination information; Column 2 Lines 10-18. Further, in Figure 5, it can be seen that the packets include the destination and source addresses; Column 6 Lines 50-54. This information would identify the sender and respective receiver of the

Art Unit: 2416

information being transmitted. Gelman and Johnson do not explicitly disclose the identification address identifies a port. However, Ofek discloses a MAC address which is used to map data from an input port to an output port; Column 9 Lines 2-3. In other words, the MAC address has a direct relation to the ports which are used to transmit data through the network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gelman to explicitly recite the identification information identifies a respective input port in the system as taught by Ofek.

One would be motivated to make the modification such that the data can be properly mapped from an input port to a corresponding destination/output port as taught by Ofek; Column 9 Lines 2-3.

Response to Arguments

Applicant's arguments filed 7/14/2008 have been fully considered but they are not persuasive.

Regarding claims 3 and 8, Applicant argues the prior art of record does not teach or fairly suggest receiving a multiplexed signal and demultiplexing the multiplexed signal into communication signals and transmitting the demultiplexed communication signals to a receiving section.

The Examiner respectfully disagrees. As shown above in the rejection, and reiterated here below, Gelman discloses, as seen in Figure 3, a network where

Art Unit: 2416

incoming signals enter through the backbone routers (24). MAC addresses are used for identification purposes for each being transmitted through the system. the DSLAM access routers receive the signal and extract the ID information of the packets in order to demultiplex the signals and send the signals to the corresponding destination devices (15); Figures 1 and 3 see also Column 2 Lines 8-25 and Column 7 Lines 23-48. Thus, described in the above-cited paragraphs, one can see that multiplexed signals with identification information associated therewith are sent through the system and the access routers send the packets to the corresponding destination devices (15) via ATU-Rs (18a-18n). The signals are multiplexed signals because the signals are being demultiplexed by the ATU-R in order to send the corresponding signal to the appropriate destination devices based on the identification information within the packet; See Figure 5 which shows the protocol stack for the system shown in Figure 3 which includes an IP source/destination address in the signals; Column 6 Lines 47-58. Thus, in light of the broad claim limitations, the claim stands properly rejected.

Applicant further argues Gelman does not disclose the claimed invention because Gelman discloses only a conventional inter-network communication arrangement and does not disclose overcoming the difficulties of providing a PPP apparatus near the IP subscriber; See Applicant's arguments page 19. The Examiner disagrees. First, the claim is not limited to a PPP apparatus near an IP subscriber and second, the prior art of record does not need to necessarily state the intended use of a claimed invention. Therefore, the rejection is proper.

Regarding claims 5 and 10 as well as 28-30, Applicant argues the prior art does not teach extracting an IP address from each packet in the received multiplexed signal and the address being presassigned.

The Examiner respectfully disagrees. As noted on Page 20 of the Arguments, Applicant admits, and Examiner agrees, Johnson teaches separating packets from the PPP stream and searching the packets to determine if the packet is intended for the server. In other words the router would check the address information within the packet to determine if the packet should be routed to the server.

The claim merely recites the basic limitations of extracting an IP address from a packet wherein the IP address is preassigned. Johnson discloses a switch/router (30) provides a bridge for PPP streams to pass signals to the subscriber devices. The switch/router examines the contents of the PPP stream and selectively separates certain packets out of the stream when it detects the packets are intended for a server and forwards them only to the intended servers; Column 8 Lines 22-30. In other words, the PPP packet stream is analyzed based on the IP address which is extracted from the packet headers and the packets are forwarded based on this extracted information. The routing decisions are made based on IP addresses which are imbedded in the packet headers for the packets being communicated over the network; Column 8 Lines 31-40). Further, for a device to extract an IP address, these addresses must have been assigned before they reached the router which makes the extraction decisions. Therefore in light of the broad claim limitations, the rejection is proper.

With respect to the newly added claim limitations, the limitations merely add basic definition to how a mux/demux work. Moreover, claims 32 recites various blocks within the apparatus to perform the well-known techniques of how mux/demuxes work in order to properly communicate the signals through the system and thus is not a patentable idea, therefore the prior art rejection shown above is proper.

Conclusion

Allowable Subject Matter

Claims 11-16 and 23-27 are allowed.

Claim 35 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2416

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON RENNER whose telephone number is (571)270-3621. The examiner can normally be reached on Monday-Thursday 7-530.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. R./
Examiner, Art Unit 2416
9/18/2009

/Huy D Vu/
Supervisory Patent Examiner, Art Unit 2416